

Date: Tue, 29 Jun 93 09:36:09 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #793
To: Info-Hams

Info-Hams Digest Tue, 29 Jun 93 Volume 93 : Issue 793

Today's Topics:

20m hot on FD (was Re: Field Day: a bummer!)
Any opinions on Icom W21-AT, especially audio?
Broadband baluns for VHF/UHF
Field Day: a bummer!
fragmentation of this group
Great Antenna
Heath keyer ID help
Macintosh Ham Software?
QST Review for KWM-2.
synthesizer
Wanted: Simple, Cheap 2M Antenna Project.
Whats a 115N05?
Where to find beginner's rigs?
Why my SCOM 5K repeater controller crashed

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 29 Jun 93 15:40:10 GMT
From: concert!duke!news.duke.edu!ee.egr.duke.edu!jbs@decwrl.dec.com
Subject: 20m hot on FD (was Re: Field Day: a bummer!)
To: info-hams@ucsd.edu

In article <20n4tj\$jq5@cnn.sim.es.com> DVHUNT@130.187.198.34 (DARVEL HUNT) writes:
>
>20m was hot in Utah! There were so many good signals that QRM was the
>norm! Anybody hear KE7GW?

Yup, 20m was hot. Too hot for QRP phone to cut through the QRO traffic... we were running 4A, just under 5 watts and had little luck with either the dipole or the delta loop. When I checked out about 0600z, we had only made about 20 contacts on 20m. :-(

-joe KD4LLV

--

You spend the night
Like you were spending a dime
- Lyle Lovett

Date: Tue, 29 Jun 1993 14:08:34 GMT
From: usc!howland.reston.ans.net!noc.near.net!saturn.caps.maine.edu!dartvax!
Daniel.W.Collison@network.UCSD.EDU
Subject: Any opinions on Icom W21-AT, especially audio?
To: info-hams@ucsd.edu

I recently bought an Icom W21-AT 144/440 dual-bander and am disappointed with the audio; speaker seems small and puts out bad audio (?vibrating against plastic?). Using an external speaker, it sounds fine. Changing units didn't help--I suppose it's possible to have 2 bad ones in a row.

Is this the experience of others?

Anyone able to compare with comparable dual-band HTs (Yaesu FT-530 or Alinco DJ-580)?

Thanks.

Dan N1PNE

Daniel.W.Collison@dartmouth.edu

Date: Tue, 29 Jun 1993 15:47:30 GMT
From: elroy.jpl.nasa.gov!sdd.hp.com!col.hp.com!news.dtc.hp.com!srngenprp!
glenne@ames.arpa
Subject: Broadband baluns for VHF/UHF
To: info-hams@ucsd.edu

Zack Lau (zlau@arrl.org) wrote:

: BTW, I wondered why the good old 10 bifilar turns of #28

: wire on an FT-37-43 worked so great as a 50 to 200 ohm
: transformer. Turns out the winding was around 100 ohms,
: about what you want for a wide bandwidth transmission line
: transformer. I asked Wes and it *wasn't* intentionally
: designed to be a transmission line transformer.

It also turns out that the impedance of bifilar wire depends upon how it is manufactured. Different wire sizes and dielectrics (insulation) give different results. Thus the best wire can often be selected for a particular use.

By using a combination of ferrite, appropriate line impedance and number of turns, it is possible to get baluns and transformers which operate from below 1 MHz to past 1 GHz. The effect of the ferrite "fades out" somewhere in the vhf region and the transmission line and "air core" effects take over. This does take attention to detail though.

Glenn Elmore n6gn

N6GN @ K3MC

amateur IP: glenn@SantaRosa.ampr.org

Internet: glenne@sr.hp.com

Date: Tue, 29 Jun 1993 15:00:32 GMT
From: pravda.sdsc.edu!news.cerf.net!usc!math.ohio-state.edu!uwm.edu!ginews!
don@network.UCSD.EDU
Subject: Field Day: a bummer!
To: info-hams@ucsd.edu

In article <20o1heINN257@topaz.bds.com> ron@topaz.bds.com (Ron Natalie) writes:
>

>Actually, we had the highest score on 20 we've had in three years.
>20 never did completely die (I remember last year spending an hour
>around 3AM trying to tweek one contact out before giving up). The
>equipment each year has been the same (3 element monobander up 30
>feet or so, Kenwood xcvr).

I second that motion. We had 7 log pages filled up before midnight on 20 cw. 40 cw was also very good. 15 cw was passable but we didn't spend much time there as the other bands were so hot. Also worked a lot of 80 cw during the wee hours. I don't know how our phone station fared as I spent most of my time on cw. All in all, I though it was one of the better field days in a couple of years.

The above was done with inverted V dipoles at 40 feet and 100 watts of power (TS-450S) running from a 12V battery. We ran 2A with one phone station, one cw station, a novice/technician station, packet, and vhf/uhf.

Donald D. Woelz, K9GR	Office Phone: 414-644-8700
GENROCO, Inc.	K9GR @WB9TYT.#MKE.WI.USA.NOAM
205 Kettle Moraine Drive North	k9gr@k9gr.ampr.org [44.92.1.48]
Slinger, WI 53086 U.S.A.	don@genroco.com

--

Donald D. Woelz	Office Phone: 414-644-8700
GENROCO, Inc.	Toll Free: 800-243-6762
205 Kettle Moraine Drive North	Office Fax: 414-644-6667
Slinger, WI 53086 U.S.A.	24 hr Voicemail: 414-322-3891

Date: 29 Jun 1993 11:02:07 GMT
From: nothing.ucsd.edu!brian@network.UCSD.EDU
Subject: fragmentation of this group
To: info-hams@ucsd.edu

fred-mckenzie@ksc.nasa.gov (Fred McKenzie) writes:
>I notice that every time someone cross-posts to other newsgroups, and
>misspells one of them, a "new group" gets created. Sometimes a more
>creative alternate name is made up, with the same results.

I suggest that you speak with your news system management about upgrading to newer news software, or at least reconfiguring the software you have. Properly operating news software does not create groups in this manner.

- Brian

Date: Tue, 29 Jun 1993 13:00:40 GMT
From: sdd.hp.com!hpscit.sc.hp.com!hpuerca.atl.hp.com!edh@network.UCSD.EDU
Subject: Great Antenna
To: info-hams@ucsd.edu

Since I wrote the article Jeff refers to (HI Jeff!), I'll take this opportunity to head-off the "where-is" posts by re-posting my multiband wire antenna article again. Enjoy!
--cut here--

Multiband Wire Antennas
By Ed Humphries - N5RCK
Hewlett-Packard NARC Atlanta GA
edh@hpuerca.atl.hp.com

The March 1991 issue of CQ Amateur Radio contains yet another discussion of multiband wire antennas. In his column "Radio FUNdamentals", Bill Orr, W6SAI writes about the original W9CXX multibander with its' complex copper tubing matching section. He then goes on to discuss the popular G5RV developed by Varney, which is widely built and commercially available. Orr points out the deficiencies of the G5RV: when built in the original design it delivers reasonable SWR on the 7, 14, and 24 MHz bands, but into a 75 ohm coax feedline that is awkward to load up on modern transceivers; when built with 50 ohm coax the SWR is poor on all bands, but it performs reasonably well when used with a "transmatch" antenna tuner.

The column skips over an intermediate antenna design discussed in the March 1986 issue of Ham Radio. Bill's column back then pointed out that W5ANB first proved you could successfully modify the G5RV, load it with 50 ohm coax and run without any antenna tuner. But the best design (so far HI) he discusses in both articles is the one by ZS6BKV. Brian Austin used computer modeling to help him design a 5 band tuner-less antenna. Orr's CQ column reprints the design using only the dimensions for a 300 ohm matching section (I presume TV flat lead qualifies). In his original column Orr also presented the figures for using 400 (handmade open-wire leads) or 450 ohm (ladder-line) as the matching section. Since 450 ohm ladder-line is somewhat stronger than the commonly available 300 ohm TV lead-in, I'm here giving both sets of figures so you can make your own choice.

< 90' 3" for 450 ohm matching section or 92' 2" for 300 ohm >
 0-----00-----0

The ZS6BKV Antenna		
		40' for 450 ohm
		36' 9" for 300 ohm

At the end of the matching section Orr recommends a 1:1 balun; others would say that several loops of coax at the feedpoint will do as well to help keep rf off the feedline. The feedline to the transceiver is common 50 ohm coax; RG 58/U is fine for hf for most runs. This antenna should give low SWR on 7, 14, 18, and 24 MHz bands. At 28 MHz the SWR is really only good from 28.5 to 29.0. Tests showed the best SWR curves when the antenna was erected at about 42 feet above ground. When run as

an inverted-V (90 degree) the resonant frequency came down 80 kHz for 14 MHz and 125 kHz for 24 and 28 MHz. The March '86 article printed SWR curves, and the March '91 article printed field patterns for all 5 covered bands.

Date: 29 Jun 93 09:53:44 EDT
From: psinnntp!arrrl.org@uunet.uu.net
Subject: Heath keyer ID help
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, jmaynard@nyx.cs.du.edu (Jay Maynard) writes:
>In article <C914KB.2t7G@austin.ibm.com> wme@prism.austin.ibm.com (Will Edwards) writes:

>>I believe the HD-1410 could be the memory keyer they came out with.
>>The paddles are touch-sensitive, and I believe it is compatible with
>>newer rigs. The keyer is iambic-only--there is no way to switch to
>>"non-iambic" mode.

>

>The HD-1410 Micromatic is my favorite keyer. It's the one with the touch
>paddles and the membrane keyboard on the top, and can run off of any power
>supply, DC or AC, from about 8 to 18 volts or so. The other one the original
>poster described is the HD-10 (I think; I used to have one of those, too).

Sorry Jay, it's not the Micromatic. The HD-1410 is a solid-state keyer reviewed in the Mar 78 QST on p 38. It's 3 X 5 X 7.4 inches with two black paddles and two black knobs on the front panel.

The Micromatic is the SA-5010, reviewed in May 82 QST on p 41. It is easily recognized by the membrane keypad and the silver touch paddles.

>

>The touch paddles are the Micromatic's most controversial feature: folks

stuff deleted

I own a Micromatic, and I'm of the "hate those touch paddles" persuasion. After opening the keyer (no easy task) repeatedly to clean the paddle-to-circuit-board contacts, I permanently stowed the paddles in their little tray and bought some Bencher paddles--much better.

Even so, I dislike Heath's use of a 3-pin header as the paddle connector. Granted, it probably saved them \$0.25, but it's weak and the connector is not polarized. I eventually soldered a cable and a 1/4-inch stereo jack to the header.

Now it's easy to move the paddles to other rigs with built-in keyers.

I found the keyer most useful in its practice modes while I was studying for code examinations. In use, I've found the membrane keypad and touch paddles user unfriendly.

BTW--The HD-10 (Jan 67 QST, p 45) has a long, narrow case with 2 knobs on top and white paddles on the front end. All of these keyers use transistors--no tubes.

If you're looking for a good expensive keyer, I recommend the CMOS Super Keyer II (93 ARRL Handbook, pp 29-6 through 11). Kits are available from Idiom Press, Box 583 Deerfield, IL 60015, for \$45 + \$3 shipping. I'm not connected to Idiom Press, but I've built their kit and installed it permanently in my HW-9. The board is about 1.5 X 2.5 inches with the battery, 4 push-button switches and a pot mounted off board. The push buttons control the memories and some commands. Sending speed may be changed via the pot, memory commands or the paddles. The keyer has numerous commands that are input via the paddles and may be included in memory messages. A very versatile keyer for little \$\$.

(The SA-5010 was \$99 new.)

73, Bob, KU7G

Date: 29 Jun 1993 08:58:14 -0700
From: news!agphx.agcs.com!not-for-mail@uunet.uu.net
Subject: Macintosh Ham Software?
To: info-hams@ucsd.edu

In article <1993Jun26.222751.5696@nic.csu.net>, David Van Nuys <vannuysd@sonoma.edu> writes:

- > I notice most or all of the software for Ham use seems to assume
- > IBM-compatibility. I have a Mac, however. What do hams with Macs do for
- > packet, satellite work, and so on. I suppose one approach would be to
- > use a program like Soft PC to emulate an IBM and run the software.
- > Anybody doing that with any success? Or are there FTP sites with Mac
- > software for hams?
- >
- > David Van Nuys
- > KD6WKT/AE
- > vannuysd@sonoma.edu

Check out the FAQ's that are posted here periodically.

Also, the archives at sumex (sumex-aim.stanford.edu) and umich (mac.archive.umich.edu) both have stuff available for anonymous ftp. Also AOL and CompuServe have stuff. And, there's an email server that mirrors sumex at rice (...!ricevm1.rice.edu!LISTSERV).

And, let me get in a little plug here. Check out SatTrak v1.02 at sumex (/info-mac/app/sat-trak-102.hqx) or umich (/mac/misc/astronomy/sattrak1.02.cpt.hqx). It's also at AOL, CompuServe, and rice. It tracks satellites, does grid squares, MUF, and other miscellaneous stuff.

If you're interested in SatTrak but can't download from the network, send a floppy (800K or 1.4M) and a prepaid mailer to the following address and I'll send you the program:

SatTrak
Mike Pflueger
6207 W. Beverly Ln.
Glendale, AZ 85306

--
Mike Pflueger, AG Communication Systems, Phoenix, AZ PP-ASEL
UUCP: ...!{att | ncar!noao!enuucp}!gtephx!pfluegerm
INTERNET: pfluegerm@agcs.com
Packet: WD8KPZ @ KB7TV.AZ.USA.NA Work: 602-582-7049 FAX: 602-582-7624

Date: 29 Jun 93 08:04:36 est
From: psinntp!arrl.org@uunet.uu.net
Subject: QST Review for KWM-2.
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, ehare@arrl.org (Ed Hare - KA1CV) writes:
>In rec.radio.amateur.misc, mohan@tulip (Mohan Pakkurti) writes:
>
>>Can someone tell me which issue of QST carried a review of the Collins KWM-2
>>series of transceivers.
>
>>From the files of the ARRL Automated Mail Server, (info@arrl.org):

considerable text, consisting mainly of a download of our Product
Review listings [that doesn't include the KWM-2], deleted

This list is not all-inclusive. True, we apparently didn't review
either the KWM-2 or KWM-2A, but we did review, for instance, at
least one of the 32S transmitters and at least one of the 75S

receivers -- "separates" siblings of the KWM-2/A. I can say, however, because I eye-scanned the *QST* indexes for the period 1958-1968 -- almost certainly that we actually didn't review the KWM-2/A. (Items sometimes fail to make the December index.) We also reviewed, for instance, the KWM-1 when it came out in the late 1950s.

The Product Review list Ed Hare uploaded is not all-inclusive; we only went back so far in entering the data because we chose to limit the job to a period we decided would be of most interest versus the cost of gathering the data. For a *QST* article of potential interest for those interested in picking up where our Product Review list leaves off, see "An Index of *QST* Items on Commercial Gear" by Bill Wageman, W0BUR, and Carol Wageman, W0HQH, in April 1968 *QST*, pages 56-59. Note, however, that this article is not all-inclusive, either; it omits, for instance, the *QST* KWM-1 review (Apr 1958, pp 23-27)!

Rather than curse their omissions, I prefer to applaud all such tabulations as good-faith efforts to cast light into darkness. Historical research -- and even looking up something as high-visibility as a single review of a major piece of ham equipment can be thought of as the first step in the 10,000-li journey of being interested in history and doing something about it -- is like radio direction finding: Bearings get you close, experience with bearings gets you closer, but you finally (usually) have to go the rest of the way on foot. In this case, considering what I said up there about items sometimes not making the December index, "on foot" might mean actually looking at each issue's product review column, or at least each issue's table of contents.

Finally, a note on *Product Review* contents. Before we called it Product Review ("ProdRev" is our in-house shorthand), we called it Recent Equipment. Its precise name aside, don't expect too much from earlier columns in the way of buying-decision help (as in "yes, but how well does it *work*?"). It hasn't been so long since we started buying our own gear "blind," testing it, and printing the results along with subjective comment about how the gear in question actually works on the air. For most of its history, the column consisted of little more than a photo or two, a review of specs, a look at a block diagram, and maybe circuit highlights, *for gear lent to us by manufacturers.* Nowadays, we expect that you expect us to help you make buying decisions, and the current Product Review process, from buying the gear we test to the words you read in *QST*, reflects this.

Regards/WJ1Z

David Newkirk, Senior Asst Tech Editor | voice: 203-666-1541 X280
American Radio Relay League | fax: 203-665-7531
225 Main St, Newington CT 06111 USA | net: dnewkirk@arrl.org

Date: 29 Jun 93 13:17:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: synthesizer
To: info-hams@ucsd.edu

I am interested in obtaining information, comments and technical/operating manuals for a 2m synthesizer.

The company WAS:

VHF Engineering
320 Water Street
Binghamton, NY 13902

The model I have is called the "Synthesizer II." The PC board shows a date of 1976 and a number "0210." The rotary switches on the front panel are prefixed with "14", the first three switches are variable from 0 - 9 and the fourth place selects 0 or 5.

A tag on the bottom id's the +12 VDC, TX and RX lines.

I have the model operating and suppling signal. However, it would be nice to know how to adjust and properly care for this hardware.

Thanks in advance for any help or advice.

73's
John N3PFF

(emil address: ryme@husky.bloomu.edu)

Date: 29 Jun 93 13:56:04 GMT
From: news-mail-gateway@ucsd.edu
Subject: Wanted: Simple, Cheap 2M Antenna Project.
To: info-hams@ucsd.edu

>>
>>: At VHF PVC isn't very good since it starts to absorb signal... but
>>: at HF it should not be an issue.
>>

We have been around to the local hamfests. There are some good deals to be found, if the new hams have enough working capital. Most of the people I have helped are operating on a shoestring budget to start this hobby.

s 1W - 5W enough power for these beginners to make a solid QSO?
Or should I steer them to higher power, older rigs like the Drake "twins" or a HW/SB-101?

As a final point, these students have learned electronic basics building projects at the bench. They show a real interest in the hobby, and we encourage them to learn. They have also had some time doing SWL and sending off report letters for QSL's.

73's

John N3PFF

~.

Date: Tue, 29 Jun 93 15:16:38 GMT
From: butch!rapnet!news@uunet.uu.net
Subject: Why my SCOM 5K repeater controller crashed
To: info-hams@ucsd.edu

Several days ago I asked for help in diagnosing my repeater's SCOM 5K controller. It generated "? RES" CW (indicating an internal reset) and also keyed the repeater transmitter at about 2 Hz with very brief pulses.

Thanks for the mailed replies from all of you.

The problem came from the power supply going into current limiting just at the time the repeater transmitter keyed up. On a scope, we saw the 13.8 VDC sag to about 8V for several milliseconds.

Apparently the ASTRON power supply goes into foldback if presented with current transients near the current limit (10 Amps from a 12 Amp ASTRON). But, the ASTRON holds fine at the sustained 10 Amps. So, when the repeater transmitter keys up, the ASTRON generates a low going transient down to about 8V.

Sometimes the transient caused the controller to cleanly reset and sometimes it caused the controller to crash and fall into that mysterious transmitting

of short pulses. I still find it amazing that once crashed, the controller could find a way to recover itself. Usually, the recovery triggered off transitions on the squelch line from the repeater receiver.

The views expressed here are my own, not my employer's.
Jeff Millar, Lockheed Sanders, 603-885-7047

Date: Tue, 29 Jun 1993 13:35:18 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!gatech!kd4nc!
ke4zv!gary@network.UCSD.EDU
To: info-hams@ucsd.edu

References <1993Jun25.205903.23150@michael.apple.com>, <C9CuEs.FJ5@fc.hp.com>,
<1993Jun29.012441.6931@serval.net.wsu.edu>
Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: [ANS] Wanted: Simple,Cheap,2m antenna project

In article <1993Jun29.012441.6931@serval.net.wsu.edu> i7994779@wsuaix.csc.wsu.edu
(Patrick D. Walters;S10000) writes:

>>
>QST in teh July issue has an article on building 2m antennas that include
>using PVC. In one the actual wires are inside the PVC. Wouldn't the antenna
>be poor if if PVC absorbed signal? Since these were both meant for HTs I would
>assume PVC doesn't absorb signal.

PVC, and most other dielectric materials, absorbs RF, but it's not like they are Faraday shields or anything. If you ran a kW to the antenna, the PVC might get hot, but at the power levels this antenna was designed for, no problem. The absorption we've been talking about is in the range of 1% or less.

Gary

--
Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | |

Date: 29 Jun 1993 14:31:22 GMT
From: pravda.sdsc.edu!news.cerf.net!usc!howland.reston.ans.net!darwin.sura.net!
news.larc.nasa.gov!grissom.larc.nasa.gov!kludge@network.UCSD.EDU
To: info-hams@ucsd.edu

References <2950293698.0.p00361@psilink.com>, <1993Jun28.050124.8086@kd4nc.uucp>,

<1993Jun28.170054.21465@microsoft.com>v

Subject : Re: Field Day: a bummer!

In article <1993Jun28.170054.21465@microsoft.com> laurahal@microsoft.com (Laura Halliday) writes:

>"Wayne Cronin" <p00361@psilink.com> writes:

>

>> I operated Field Day in class 1D (home station, commercial power) from

>> here in Tempe, Arizona.

>

>> Propagation, to put it nicely, STUNK!!!

Around here, things were find. 10M was pretty dead, but the lower bands were doing nicely. We even worked 30M this year, and got into a long ragchew with a guy in Antigua for over an hour.

More importantly, this is the first year that it has not rained on field day. We didn't even get a bit of lightning. Nobody passed out from excessive alcohol consumption. The generator broke down, but this time it didn't catch fire. Someone dropped an ARC-5 set into the water, but we dried it out and had it operating on 160M within a couple hours. None of the antennas fell down.

And, I got a real live 6M contact with the homebrew 1.5W transmitter for the first time ever.

Sure, as multi-multi stations go, we won't even get a mention at the bottom of the page, but we all had a good time, and that's what field day is about.

--scott

--

"C'est un Nagra. C'est suisse, et tres, tres precis."

End of Info-Hams Digest V93 #793
